California GARDEN

FORTY-FIFTH YEAR WINTER, 1954 VOLUME 45, NO. 4

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SAN DIEGO FLORAL ASSOCIATION, SAN DIEGO, CALIFORNIA

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PARK ADMINISTRATION BUILDING
Balboa Park
San Diego 1, California

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Eugene Dewey

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CALIFORNIA GARDEN

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SAN DIEGO FLORAL ASSOCIATION
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BALBOA PARK

Under the sponsorship of
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Roland S. Hoyt
Jerry Hunter
Marion Almy Lippitt
Roy A. Ouer, M.D.
Ada Perry
Mae Lou Town
Frank Quintana, Science

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CALENDAR of EVENTS

DECEMBER

December 21 . . . . . 8 p.m.
Sam Hinton . . . Christmas Program

JANUARY

January 18 . . . . . 8 p.m.

FEBRUARY

February 15 . . . . . 2 p.m.
"Spring Arrangements"

SAN DIEGO FLORAL ASSN., INC.
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Wanted: Back issues of California Garden from 1909 to 1916 and Spring, 1952. Please send to Miss Alice M. Greer for files.

Entered as second-class matter December 8, 1910, at the Post Office at San Diego, California, under the Act of March 3, 1879.

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for

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Mrs. C. Lee - 3911 St. James S.D. 3

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February 3, 1955

San Diego Floral Association
4876 West Mountainview Drive
San Diego, California

Mrs. Harriett Popejoy, Secretary:

The San Diego County Dahlia Society held their annual election of officers at the Bi-monthly meeting held November 22nd.

The following officers were elected to serve for the year of 1955:

President----------	R. B. Williams
Vice President----------	L. C. Hegele
Treasurer----------	Mrs. W. F. Booker
Recording Secretary-------	Mrs. J. A. Bishop
Corresponding Secretary---	Mrs. D. E. Hughes

An Executive Board meeting was held January 20th, at the W. F. Booker residence, for the purpose of discussing the duties of the officers of the forthcoming year and appointing the committes for the Annual Dahlia Show.

The San Diego County Dahlia Society's regular meeting was held January 25th, at the Civic Center Cafe. An interesting program was planned and presented by Vice President, L. C. Hegele, featuring Dahlia Society members and their flower hobby. Mrs. Bishop's informal discussion was applauded with enthusiasm for her expression of desire for all members to share their flowers with those less fortunate and unable to have beautiful blooms of their own. Her practice of taking flowers to various rest homes and her many notes of appreciation from the residents were especially rewarding and gave the other members the desire to do better in the future.

The Sixth Annual Conference of the Southern California Dahlia Association will be held February 12th and 13th, at Hotel Manor, San Diego, California. The afternoon session will include a business meeting; flower arrangement discussion, applicable for Dahlia shows; and how to choose Seedlings worthy of sending to Trial Grounds; followed by a question and answer period. At 6:30 P.M. a Banquet will be held with entertainment by the Theclacade by San Diego Indoor Sports Club. A National Report on top winning show varieties and other pertinent discussions of the fertilizing and care of Dahlias. Out of town guests will have breakfast Sunday, 9:30 A.M. at the Hotel Manor, through the courtesy of the San Diego County Dahlia Society.

Mrs. Delbert E. Hughes, Corresponding Sec.
3663 Riviera Drive
San Diego 9, Calif.

California Garden

FORTY-FIFTH YEAR WINTER, 1954 VOL. 45, NO. 4

During the twenty-seven years since its founding Rancho Santa Ana Botanic Garden has assumed important proportions for the student and lover of western flora. It is to Susanna Bixby Bryant, daughter of a California pioneer, that the public is indebted for the preservation of native flora and rare species.

Rancho Santa Ana Botanic Garden

Philip A. Munz

Rancho Santa Ana Botanic Garden was founded in 1927 by Susanna Bixby Bryant in memory of her father, John W. Bixby, a California pioneer who loved his adopted state and its native vegetation. Mrs. Bryant established the Garden on a foundation and with a Board of Trustees in 1934, for the study of the native plants of California, to preserve the native flora, to try to prevent the extermination of the rare species, and to bring together in one place as many as could there be grown, for the education of the public and for their enjoyment. Dr. Carl B. Wolf was for many years botanist of the institution and did much to build up its collection of living plants and an herbarium. Until her death in October, 1946, Mrs. Bryant acted as the director.

Until 1951 the Garden occupied a commanding site in the Santa Ana River Canyon of eastern Orange County, where it had two hundred acres of hilly, almost mountainous terrain. It had growing at a given time about twelve hundred species of plants. On Fridays and Saturdays in the spring season it was open to visitors; talks were given by various members of the staff in the Assembly Hall; and a flower show, usually with about one hundred and twenty-five species, was on display. Many thousands of persons came who were interested in the native plants for use at their own homes and who sought more information as to their kinds and culture, as did numerous botany classes, garden clubs, and natural history societies.

Because of the remoteness of the above location and its comparative inaccessibility, since it is many miles from the nearest town and in the center of a six thousand-acre ranch, the Board of Trustees acquired a site in Claremont and entered into affiliation with Claremont College and the other Associated Colleges at Claremont. There the Garden is still an independent institution, maintaining its own Board and resources, but cooperating with the Colleges in various ways. Its scientific staff have academic status in the Graduate School of Claremont College and cooperate with the botanists of the Colleges in a program of graduate instruction. Occupying an area of about eighty acres, the Garden at its new site has constructed a new nursery plant, including a cottage for the nurseryman and his family, a potting shed, aluminum lath house, metal-framed greenhouse, and a building for garages, seed-cleaning room, storage-room, etc. An administration building with about thirteen thousand square feet of floor space has been built for offices, laboratories, herbarium, and library.

The herbarium of Pomona College is housed in the Garden Building as is the research portion of the College's botany library. The combined herbaria of the College and the Garden are over four hundred thousand sheets; the combined libraries over thirteen thousand volumes.

At the Claremont site, planting has been done in such a way that the things usually sought by visitors are easily accessible: wildflowers, cacti and succulents, ground covers, specimen plants of trees and shrubs. These are arranged after a carefully developed plan by C. Jacques Hahn, landscape architect. An experimental or test plot of several acres lies somewhat farther away and near the nursery. Then beyond this some fifty-five acres are being planted according to plant communities of the state, following a system worked out by Munz and Keck for a Flora of California, in course of preparation. By this system the vegetation of California is divided into twenty-eight communities such as Redwood Forest, Yellow Pine Forest, Pinyon-Juniper Woodland, Oak Woodland, Valley Grassland, etc. Thus, in this area plants will be found with their associates in the wild and as these communities develop, the student will find a demonstration in miniature of the California flora, so far as it is possible to grow it in one locality. With a variety of soils the site should be admirable for this purpose.

Such a move takes time and effort. Work has been under way since 1949. A chain link fence was constructed around the entire area, about ten miles of pipe lines were installed, roads and trails were laid out, and much paving was done. Not only is this new site near the Colleges, but it is adjacent to one of the principal highways leading from Los Angeles and the metropolitan area toward the east, so that it is easily accessible to the general public, making the Garden much more useful than it has been in the past.

The research program of the Rancho Santa Ana Botanic Garden at present is concerned: (1) with the systematics and botany of California flora and (2) with the breeding and horticultural development of California natives. A number of projects are under way in connection with the former category, such as the preparation of a manual of California plants by the author in collaboration with Dr. David D. Keck of New York Botanical Garden; experimental studies on speciation and phylogeny in certain groups by Dr. Verne E. Grant such as in the genus Gilia; studies on pollination and insect visitation by Dr. Grant; cytological studies in various groups by Dr. Lee W. Lenz; a study of California species of Iris by Dr. Lenz.

In connection with a breeding program Dr. Lenz is doing much hybridizing and selecting in a wide variety of groups, attempting to improve some forms for garden use and to create others. California has an unusually rich and beautiful flora, many species of which were introduced into the trade in Europe over a century ago, beginning with the introductions of men like David Douglas. In America these have not found the favor that they have in northwestern Europe, perhaps because in the central and eastern portions of the United States the

hot summer nights seem unsuited to Pacific Coast plants accustomed to cool nights. On the coast itself, however, the local native plants are rapidly growing in popularity, but offer some problems inasmuch as many are accustomed to summer dormancy and cannot take the irrigation in or about a lawn. In some cases hybridization with related species from a wet summer climate provides remedy if careful selection and roguing follow the hybridization. In other cases, natives may be somewhat leggy or one form may have better foliage and another better flowers. At any rate, there is in nature a tremendous wealth of material for the plant breeder on this coast. Dr. Lenz has work under way with iris, penstemon, fragaria, diplacus, ceanothus, calochortus, coreopsis, mimulus, and many other genera. Dr. Lenz has nearing completion a book on some leading California natives and their propagation and culture; this will be very profusely illustrated. A number of his horticultural creations are already in the trade (Iris Santa Ana, Santa Anita, and Santa Paula) and a new groundcover with excellent fruit has been released by the Garden and should become available in 1955 (Hybrid Ornamental Strawberry No. 25).

P. C. Everett, Superintendent of the Garden, is completing a general compilation of the results of the twenty years of work at the Garden in seed germination, propagation and culture of some thousands of species and many thousand lots of seed. A more recent appointment to the staff of the Garden is Dr. Richard K. Benjamin who has now been on the staff for two years and is carrying on studies in California fungi. At present Pomona College botanists are largely devoted to research in Taxonomy and Ecology; they participate with the Garden botanists in graduate work.

The Garden publishes its own journal, El Aliso, which appears usually about once a year and contains both botanical and horticultural papers, largely the presentation of the research done by the Garden staff. This journal goes to most American universities and colleges actively interested in western botany, as well as to many individuals, academies of science and other institutions in this country and abroad. Exchanges are maintained with some such institutions for their journals and subscriptions are bought for other periodicals, so that the Garden now receives well over two hundred such publications. Pomona College subscribes for others. During the past few years the Garden has spent a great deal of money for books and has trebled its library; here again it has largely bought so as not to duplicate the materials in the college libraries at Claremont and to emphasize not only botany but horticulture. The result is that the combined libraries offer a good basis for graduate instruction and for research. The Garden also possesses the Gray Herbarium Card Index, a key to the nomenclature of American plants.

Beginning in 1953 the Garden has been open to visitors at its new site. It is open daily except Sunday from 10:00 a.m. to 4:00 p.m., without charge. Individuals or small groups need not make special arrangements about visits, but larger groups wishing conducted tours should make arrangements in advance. Best visiting season is from March to June. Plants are well labelled and members of the Garden staff are glad to help and advise on culture and desirability of various native plants. To a limited extent members of the staff are available for lectures to garden clubs and similar groups.

Thus, the Rancho Santa Ana Botanic Garden is an institution for research on the native plants and for dissemination of knowledge about them and their propagation and culture. It participates in a program of instruction in botany and horticulture in the Claremont Graduate School. It is building up and maintaining a collection of living plants, an herbarium, and a library. It attempts to help the layman as well as the professional botanist.

Parkinsonia

Alfred C. Hottes

Par-kin soh′ ni-a. Named for John Parkinson, Sixteenth Century author on plants and one of the first authors of a garden book in English, "Paradisus in Sole Terrestris." Family Leguminosae, related to peas and beans.

One of the loveliest and most graceful of trees which casts no shade but throws a veil of verdure into the garden background is the *Parkinsonia aculeata,* variously called Paloverde, Jerusalemthorn, Ratama, Horsebean, or Bagote. The green-twigged trees are thorny, sparsely furnished with foliage and come from Mexico and certain remote canyons of southern Arizona. Leaves are alternate or in clusters, twelve inches long, and bipinnate, though they do not at first glance appear to be so. The petioles are very short and the two to four pinnae are closely lined with pinnules one-eighth inch long, or a trifle larger. The branchlets are zigzag and thorny. Flowers are yellow, marked with dull red (sometimes the marking is almost absent), in loose racemes; petals five, one larger and broader with a pubescent claw and nectiferous on the upper side; stamens ten, hairy at base; calyx five-lobed, reflexed; blooms in late summer and fall, slightly fragrant.

By rights, the true Paloverde is *Cercidium torreyana* or *Parkinsonia florida,* commonly wild in the desert washes of Arizona, or in the Colorado desert. It is easily confused with the above species. This sort has blue-green foliage and bark. The leaflets appear in three pairs, one-fourth inch long, twice the size of the former species and are not shed as quickly. The twigs have spines one-fourth inch long at each node. The flowers never develop the dull red spot.

Uses. These trees tolerate extreme drought and heat and it is not wise to force the growth by extra watering or feeding. Roland Hoyt observed that the trees are best in the deeper soils. The trees will tolerate eighteen degrees Fahrenheit and are hardy in South Carolina and northern Florida.

Rainford Flower Shop

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The FRANK H. GANDER Nursery

On Bernardo Ave. west of Felicita Park From U. S. 395 turn west on first road north of Lake Hodges bridge.

Mr. Reinelt's interest is justifiably personal in these primroses, his own development. He considers them "blue chip plants, a wise garden investment always."

The Pacific Strain of Polyanthus Primroses

FRANK REINELT

Several years ago while visiting in San Diego in the early spring, I walked into a nursery in La Jolla, and there, among other things, I saw several flats of polyanthus primroses in full bloom. They were *my* primroses, and finding them there was like finding an old friend in a strange country.

The Pacific Strain of Polyanthus Primroses which we introduced to the gardening public at the World's Fair on Treasure Island in San Francisco in 1939, goes back about twenty-five years when I started operating a nursery in Capitola. In the beginning when I had more time than at present, I was interested in breeding all kinds of primroses. Gradually my attention centered entirely on the polyanthus type, a form adaptable to a great variety of climates, doing magnificently in cool moist areas and yet persisting well in warm dry districts where other primroses fold up in no time.

Polyanthi are frequently the first plants to bloom in our spring garden and give me more for my effort than any other flower at that season. Here on the Pacific Coast, they begin flowering around the first of February, and if well fed, continue almost to the middle of June. The best show, of course, is reached during March and possibly early April. They are wonderful along the edge of a path where their haunting fragrance can be enjoyed to the fullest. They are fine companion plants to spring bulbs, particularly daffodils, and exciting color combinations can be worked out since polyanthus plants do not object to being moved in bloom, settling down quickly with good treatment. The pastels are fine for delicate effects while the deep solid colors are unsurpassed in cheering up a background of evergreens or perennials.

In the beginning of my breeding program for polyanthus, I bought seed from every reputable seed house in Europe and started the long sifting process of establishing a stud group. Perhaps the best material of all was obtained from Dr. Sydney Mitchell's garden in Berkeley and from Hugh B. Logan's garden in Inverness, both of whom had a fine collection. Also, while visiting estate gardens on the peninsula, I would manage to talk the gardeners out of any especially good specimens encountered. This, then, was the base for the crossing and re-crossing that went on down through the generations.

Progress was slow at first, and the back bending labor long, but my patience was long also, twenty-five years ago. I raised from five to ten thousand seedlings each year picking out the seed-bearers and wholesaling the best of the residue to an Eastern seed firm and plowing under the discards. My objective was large individual florets of two inches or more carried on tall stiff stems in as wide a color range as possible. Little by little better plants developed and after the war when we hit our stride of a hundred thousand or more seedlings annually, new breaks began to appear. Progress is more rapid as time goes on, and pinks and clear rose shades which were unheard of ten years ago, are now plentiful. Blues, very small and with weak stems at the outset, are now the rival of any other color. Lately, a new combination has appeared among the pastels resembling in color some of the English pelargoniums. Given sufficient time, I am certain that we will obtain all the shades and patterns found in other types of primroses. Florets of two inches and more across are common now, these carried on stiff stems far thicker than a pencil.

At present we are growing about one hundred and fifty thousand polyanthi each year, of which two to three thousand of the best are potted up and moved into a cold greenhouse in February. The weather being what it is in winter, under glass we can cross-pollinate at will and insure a seed crop for the next generation. By mid-April when pollenizing is finished and the pods are set, the pots are moved into the lath house for the ripening process. Seed is harvested in May and June.

Immediately after harvesting, the seed is sown in open beds under lath, the beds being covered with sack cloth to keep moisture and humidity constant during germination. Growth is rapid, and by mid-September good sized plants are ready to go directly into the field, again under lath. The overhead lath is removed about December first so that the plants can get full light during the winter months. The beds in which we field out are mulched with redwood sawdust to prevent drying, and two feedings are given with ammonium phosphate, one in November and one again in early January. By the first of February, the plants are large and husky and beginning to bloom. They are dug in full bloom, packed in flats and distributed to nurseries for re-sale.

Planted in gardens, polyanthus requires sandy loam, or any good soil, enriched with well decayed manure and bonemeal, plenty of water always, and not too sunny an exposure. Along the coast they will stand full sunshine if heavily mulched, thus protecting the soil from drying out. Inland, they should be grown in semi-shade, possibly on the north side of the house, so that they get forenoon sun and afternoon sun and afternoon shade. In dry hot districts, red spider will attack them if kept too dry. Spray with Vapor-tone to control. In wet districts, along the ocean, bacterial leaf spot may be a problem in years when there is a great deal of rain. Spray with Bordeaux.

And so in closing I would say that here is a true perennial, adjustable to varied conditions, and pleasing year after year. This is one of those blue chip plants, a wise garden investment always.

NO BOASTING

My garden always blooms the best,
Until there comes a gardening guest:
And then, why does it seem
A flowerless dream?

—Jessie Miller Robinson

It's a beautiful ride
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Mrs. John Davidson, one of San Diego's eminent historians, produces evidence that our proud Serra Palm and its late contemporary had origins from among the rations of Spanish pioneers.

Serra Palm

WINIFRED DAVIDSON

At the foot of what used to be called Presidio Hill, near the lower approach to what Spanish settlers called the Garden of the King (El Jardín del Rey) —now known as Franciscan Gardens, towers slightly obliquely our Serra Palm, a living reminder of something precious in California's past. Local historians believe that it sprouted here about 1769. They recognize it as the tree pioneer; oldest to have originated in a foreign country, first to be planted in this new land by Europeans.

This seedling, this landmark, still visibly flourishing, is one of the few survivors hereabout, of the period of Spanish occupancy of the west coast of the United States. May we not think of it as a monument to the remarkable movement conceived in 1768 as the "Sacred Expedition of José de Galvez" and first brought to success in the founding of Mission San Diego and the establishment of a military camp (later presidio) near this spot? A memorial to sailors and soldiers who perished in that expedition and whose graves alongside remain and must remain forever unidentified?

This oldest Phoenix *dactylifera* has now reached a height of seventy-five feet and a little more. A companion survived into the middle years of last century but was destroyed by halter cuts and hide-scratchings of stray horses and donkeys, they used to tell us; and a part of its trunk long lay in a corner of the Estudillo patio. There was no such third palm at this site. The Phoenix *dactylifera* that was exhibited at Chicago's World's Fair, and afterwards lived under glass, was not uprooted from this historic Spanish Camp site, but from a place on the south side of El Camino del Rio about a mile east of Serra Palm.

This tree is a reminder also of El Camino Real, the King's Highway, first surveyed by Governor Gaspar de Portolá and his company of about sixty sufficiently recovered from scurvy to be able to mount a horse; leaving this spot headed for an uncertain Monterey July 14, 1769. The long-used San Diego River ford by which they crossed over to dry land was immediately below where the palm stands: where Taylor street now runs into the river road, near Old Town bridge; marked, too, by the Camino Real bell and the concrete La Playa Trail marker. The palm sprouted close to the river bank.

During the years since George White Marston provided San Diego with a place in which to preserve historical material, Junipero Serra Museum has received a number of testimonials regarding the importance of Serra Palm; some including good advice about appreciating it and about taking precautions to keep it living as long as possible.

About twenty years ago we had a distinguished visitor who had recently seen the tall palms near the old landing place at La Paz, Lower California. He said that Serra Palm looked very familiar. It was like those La Paz trees, said at that time to be nearly 170 years old. We recalled that at Spanish Camp life went on completely out-of-doors; that dates were included among our Spanish pioneers' rations; that they are mentioned on the earliest ship's manifest. A correspondent wrote the Museum that he believed that in that list of foods for the Spanish troops we have the authentic beginning of the Serra Palm and of other old seedlings of the Phoenix *dactylifera* here and elsewhere in southern California.

The San Diego Union of Nov. 4, 1868 (at the very beginning of that paper's existence) has this pertinent item:

"Those Palm Trees — Among the greatest ornaments and curiosities of this neighborhood are the palm trees near Old Town. It would be a pity to lose them; yet they are exposed by the roadside, to be bruised by runaways . . . to be burnt and chipped by vagabonds. Will not some public-spirited citizen levy a contribution of our lumber yards and carpenters and have them fenced in?"

The same paper, Apr. 2, 1887, says that the palms ". . . have been injured considerably by gnawing of uneasy horses and the carvings of vandal knives, but they have great vitality yet and promise to live another hundred years."

The iron fence which now protects the tree was originally donated by Mrs. Winifred Murtha and placed around Serra Cross in Predidio Park. It was taken apart and rebuilt around the tree, where it was really needed, in 1929. In the early '30s the Park and Fire departments cooperated to straighten and bolster the trunk, which resulted in the stout wire braces, regrettable but somehow in no way reducing old Californians' interest in the tree itself. They, and it is is hoped many, in years to come will be reminded that Serra Palm stands for one of our most important beginnings: a horticultural importance—first tree-planting—as well as historical "starts."

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Newer Ornamentals

Philip Edward Chandler

Not one of the newer ornamentals reviewed herein was brought into Southern California this year, but all are "new" to the nursery-going public because 1954 is the first season any of them has been available in quantity. The first five are recent introductions but thoroughly tested as to horticultural adaptability as well as design value. The next four have been around as collector's items for a long time, never common nor fully appreciated. The last two are older plants revived because of their special uses.

Tupidanthus calyptratus is a small evergreen tree to twenty feet valuable for its extremely glossy emerald green open-patterned leaves, and its vigorous large-scale delicacy of structure, a tropical conversation piece for terrace or open ground part shade or all day's sun. (Not too sudden full sun when just moved from the lath house in midsummer.) The leaves are palmately divided into seven-nine entire leaflets seven inches (or more) long with long pointed hook at end. The flowers are inconspicuous green in umbels. Tupidanthus is fairly easily distinguished from *Brassaia* (*Schefflera*) *actinophylla* by its self-branching habit even in extreme youth—a four-foot specimen usually has vigorous side branches right at the ground—the wider spaces between leaflets, the lax or drooping quality of each leaflet, and the less umbrella-like head. And of course Brassaia has showy spikes of bright red bloom, WHEN it blooms in California. Tupidanthus is considerably more resistant to cold than Brassaia (i.e. Huntington Gardens for last eight years). An eye-catching young tree some fifteen feet high is well placed in the entrance patio of an office building at 11973 San Vicente Blvd., West Los Angeles. This is a plant which perhaps best displays its elegance of character planted *alone,* say as THE tubbed specimen or somewhat isolated in an open area with a groundcover of lava or pea gravel, other ornamentals in some proximity might well be Heliconia species, Shell ginger (*Alpinia nutans*), Guadalupe palm (*Erythea edulis*), *Moraoa iridioides*

Meryta sinclairi was first grown to dramatic proportions in Strybing Arboretum, San Francisco. As with many New Zealand materials the central California coast proved a natural new environment for this plant, but the fog belt of southern California has grown even more and better Meryta. A stately evergreen shrub for at least some shade and retained moisture, this ornamental *may* achieve twenty-five feet (it hasn't yet in California), densely furbished with two feet black green conspicuously-veined leaves on pale leaf stalks to one foot or more long, spotted dark brown. Flowers are inconspicuous, greenish white in panicles to one and one-half feet long. Fruit, one-half inch black and shining, has not yet developed here. The leathery green texture of Meryta is well repeated on a smaller scale by *Aucuba longiflora* or *A. japonica* (not variegated). It also makes a fine foil for *Cyathea medullaris* (black-stemmed New Zealand tree fern and *Asplenium bulbiferum* (mother fern).

Of the various species of Nothopanax planted out in southern California within the last few years, by far the best is *N. arborea,* another New Zealander for light to full shade, incredibly fast growing perhaps to twenty feet. Vertical in line, dark-stemmed, the dark green leaves palmately compound are conspicuously serrate and within two years from a gallon can often become twenty inches across. The plant quickly branches from the ground and becomes multiple-stemmed but always with emphasis on succulent vertical stems in good contrast to the horizontal habit of the big-fingered leaves. The grower is little worried by loopers and aphis—the bane of *N. laetum.* With a bit of pruning it is a fine subject for narrow corners, and it does well in deep shade with Kentia palms (*Howea forsteriana*), Aspidistra and Clivia.

Erythrina humeana, tree form (there is semi-herbaceous form), is considered by Edwin Menninger, "the Flowering Tree Man of Florida," to be the most beautiful of all the coral trees. Certainly it is one of the showiest, one of the easiest and soonest to bloom. Also it is a smallish tree, probably never more than twenty feet in height and spread, and its blooming season—June to December—is one of the longest. Brilliant red orange flowers in long upright spikes stand high above the open mass of large stemmy leaves from the five-gallon stage increasing in gaudiness with each succeeding season which reaches its peak usually in the hot weeks of early fall. Apparently successful in any full-sun exposure and warm not-too-wet soil (few corals are at their best in wet green lawns), *E. humeana* is cold hardy wherever Hibiscus winters well. Few blooming subjects present so arresting a spectacle. Effective companion plants are *Erythrina bidwilli* (a shrubbier coral with long sprays of Poinsettia red), *Aloe arborescens* and *A. striata,* Kalanchoe coccinea brick red or gold at opposite season of the year.

No more different plant from the above can be imagined than *Hebe menziesi,* a bush veronica recently brought south from the San Francisco region. Many species and varieties of Hebe have been grown in the coastal south for generations, but in the opinion of the writer this is *the* best of them all. Only fourteen-sixteen inches high and twenty inches across this elegant little shrub which looks well-dressed at all times spells a happy new answer for a permanent ornamental where one wants something to *stay* little. Completely evergreen with leaves right down to the ground—tiny pointed triangles of leaves—*H. menziesi* grows easily and well in almost any soil and any exposure that is not extremely hot or dry, a sprightly low mound of good gloss and fine texture. And in addition to all these attributes the shrub BLOOMS profusely in spring and summer, short diagonal spikes of lacy white. No bug, no virus has yet been observed on a single plant in any garden; in no way is this Hebe a prima donna. Of course its extremely small scale suggests its association with things like *Lonicera nitida* and *Azara microphylla;* and it's fine in seven inch fern pans.

Carissa grandiflora variety Fancy is a superior rather new Natal plum, so superior in fact that it may eventually replace the original species of which it is unquestionably a sport perpetuated by cuttings. Larger rounder more leathery leaves spaced a bit more widely on the branches mark one distinction. Larger more complicated handsomer thorns add new interest. More and larger flowers precede and accompany

out-size fruits that are redder and more delicious. No use to which this new form has been put shows it off to better effect than that of a container subject. Whether the theme song is Oriental modern, Mediterranean, California ranch, or just plain carpenter's cottage, this splendid plant material brings out the best in any garden. And as to plant associations, Carissa looks well with most anything from pines to palms and is surprisingly harmonious with succulents.

An old-time collector's item now conspicuous by its fast-growing presence is the glorious ping kapok, *Chorisia speciosa,* and aristocrat among tropical trees easily grown in southern California gardens not too small to accommodate a tree which may grow to fifty feet or more though it usually doesn't bloom for several years out of a five-gallon can. When it does it's quite a sight, as passersby have long observed at the Bel Air Hotel in West Los Angeles, the southern California Automobile Club at Figueroa and West Adams (L. A.), and various other places. This South American ornamental is distinguished by its tapering spine-covered green trunk which changes to gray with maturity, alternate digitately compound leaves, leaflets lanceolate toothed, and ultimately a mass of conspicuous orchid-pink flowers in May or October or both. The solitary blossoms in axils sometimes are three inches across. The tree is partly deciduous in California, especially when in bloom or following frost. Its pear-shaped capsular fruits are filled with silky floss around the seeds; this floss is one of the sources of kapok. No special culture seems necessary though good drainage and fairly deep soil are desirable. One of the most effective recent plantings of this kapok included a massing of *Mahonia lomariifolia* and *M. beali* faced with *Helleborus corsicus.*

Among the most desirable of all bamboos, *Sasa palmata* has been a collector's item since its advent into California many years ago and is still not available in most nurseries. But the fact that it may be bought at all, in ordinary egg cans at a not prohibitive price, is news. Hardy to five degrees Fahrenheit or lower, it is usable in practically any garden (or living room) anywhere in California. A dwarf, to five feet, its three inch wide leaves are arranged palmately at the end of tan-sheathed stems like extended fingers, and a small clump in a sake tub is a still-life composition in itself, an Oriental line drawing of the highest simplicity and charm. In the open garden this ornamental adapts itself to its surroundings admirably, in a sump or fairly dry, sun or shade, almost any soil. And whether the garden is traditional—Georgian, Colonial, Regency, Williamsburg, supercontemporary or just plain garden, it lends an airy handsome touch at all seasons and in all weather. It's lovely contrast in a planting of other finer-leaved bamboos (as at the Old Botanic Garden in Washington, D. C.); it's great with pines and Chinese magnolias; and an effective companion.

Solandra longiflora is a much neglected tropical vine, unknown by most horticulturists who are quite familiar with *S. guttata,* the burly Cup of Gold. *S. longiflora* has obovate leaves about three inches in diameter with brown-purple petioles, long pointed purple buds—one foot long—which swell balloon-like and open into cream white flowers funnel-shaped three times as long as the calyx and contracted at the throat. The outsides of the petals are bronze purple, the white insides sometimes lined with purple. The vine itself with its relatively small leaves and stems lies much flatter to the wall than any other Solandra; the heavy blooming season is October-November. The south side of a two-story building covered with this climber is a sight in mid autumn when flowers are appreciated, and the last three winters, very mild, have fostered a considerable show of flowers until March. Repetition of the leaf size and texture is found in *Acocanthera venenata* and *Catha edulis,* bronze-green shrubs which also emphasize the remarkable purplish bronze of the flowers. Red or bronze New Zealand flax (*Phormium tenax rubrum*) might add the finishing point. For the first time in years shoppers may now find *Solandra longiflora* in nurseries.

An even older timer renewed to availability is the charming frost-tender Florida native, *Hamelia erecta (patens),* a soft-textured glossy orange-bronze shrub eight-twelve feet high and sometimes as much across, adorned most of the year with orange-scarlet tubular clustered flowers achieving their best show in mid autumn as a result of the accumulated heat of the entire season. Almost equally showy fruit matures at the same time, dark red to purplish black. Like many evergreens from climates with warmer nights, Hamelia possesses more leaf color in California than in its native habitat thereby accentuating its naturally red midribs, younger branches and leaf stalks and presenting a more definite value in the landscape. Cultural requirements are few but unequivocal—drainage, fairly rich moist soil, and WARMTH. Suggested companions to emphasize the beauty of this shrub include *Catha edulis,* Kalanchoe coccinea gold or red, and/or Bouvardia Firechief.

A close relative of the *Tibouchina semidecandra* but far less known and appreciated is *Heterocentron roseum,* which grows two-six feet and across with quadrangular branches and oval, pointed, hairy leaves one-two inches long, obliquely feather-veined and often conspicuously reddish. Purplish rose flowers develop in panicles at branch ends, small blossoms—less than an inch across—but in profusion at any old season of extended warmth. Some established plants are almost everblooming, forming natural facer for the sometimes leggy Tibouchina, natural too in color sequence, and requiring exactly the same culture — cool, acid, well-drained soil with head in the sun. A third member of the Melastomaceae which belongs in this grouping is *Schizocentron elegans,* an ideal groundcover to grow in the shade of the above subjects—brilliant magenta-red carpet with one-half inch leaves identical in color and texture to those of Heterocentron. All the members of this family prefer the moister air of coastal sections to the dryer inland valleys.

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In a second article on plant allergy, Dr. Ouer lists the common allergic manifestations and describes methods of combatting them.

Plant Allergy

Roy A. Ouer, M. D.

In the last issue of California Garden, it was shown that a considerable number of people are allergic to windborne pollens, plants to which they might come in direct contact, or food products. The tissues usually affected are those in direct contact with the environment, such as the mucous membranes of the respiratory tract, and the mucous membranes of the gastro-intestinal tract, and the skin. However, no tissue of the body is completely immune from an allergic reaction, since this reaction is cellular and may occur anywhere in the body.

The common allergic manifestations may be classed as follows:

A. NOSE
   1. Hay fever
   2. "Sinus"
   3. "Frequent colds"
   4. Nasal congestion and discharge (runny nose)

B. LUNGS AND BRONCHAE
   1. Asthma
   2. Bronchitis
   3. Catarrh
   4. Chronic cough

C. SKIN
   1. Hives (Urticaria)
   2. Eczema
   3. Angioedema (swollen skin)
   4. Dermatitis (skin rash or inflammation)

D. EYES
   1. Conjunctivitis (red eyes)
   2. Blepharitis (swollen, itching lids)

E. BLOOD VESSELS
   1. Migraine (sick headache)

F. GASTRO-INTESTINAL TRACT
   1. "Colitis"
   2. Diarrheas, nausea, vomiting, etc.

Although there are many other manifestations of allergy in the human body, these are the major ones encountered in common medical practice. The diagnosis of allergic conditions rests upon a very careful history and physical examination. The history is most important insofar as a careful questioning of the patient will often detect some very unusual contact and might disclose some bizarre seasonal or perennial offending agent. Certain laboratory tests, such as examination of the blood or nasal secretions and sputum, will often reveal the presence of allergic cells under the microscope. (These cells are known as eosinophils.)

The allergic skin tests are of extreme importance in determining the offending agents. These tests are designed to detect the particular pollen or contact substance which might be causing difficulty. The solutions used for detection of plant allergy are extracts of pollens of weeds and grasses. These are grown under special conditions and are collected very carefully so that there is no contamination. Special laboratories provide these pollens in either the dried form on in concentrated solutions, which can then be diluted properly for various types of skin testing. The common methods used are the scratch tests, intra-dermal tests, or patch tests. In the scratch test method a small amount of the extract is placed upon the skin and a small scratch is made in the skin at the site of the test. In the intradermal test, a small amount of dilute solution is placed just under the surface of the skin with a very tiny needle. In patch testing direct contact is made with the skin over a period of twenty-four hours and the material is then removed. A positive reaction is present in either of these test methods, by noting a red zone, together with a swollen area, surrounding the test site. A large number of tests may be necessary before all of the offending substances are discovered. (Environmental substances, such as feathers, wool, dog hair, animal danders, house dust, etc., are also available in the form of extracts for testing. Extracts of food are also prepared and patients may be skin tested for food allergy by the same method.)

When one does not wish to test the subject directly on his own skin, it is possible to take a blood sample from the patient and treat this sample in such a way that the serum is obtained, and this serum may then be placed upon the skin of a donor for indirect testing. This method can be used when the patient is a baby or small child, or when, for various reasons, testing is impractical upon the patient himself. (This method is known as the passive transfer testing procedure.)

Treatment of an allergic state is essentially three fold: (1) Specific, (2) Elimination, and (3) Symptomatic.

Specific treatment of allergic sensitivity is known as desensitization (or hyposensitization), and consists of graduated injections of extracts to which the patient has been found previously sensitive by skin tests. The dosage is gradually increased from a very dilute solution to a more concentrated solution, during the course of which the patient develops a degree of immunity sufficient to protect him from attacks of allergy due to contact with the offendor. Injections are usually given at first twice a week for a matter of two or three months and then gradually the interval between injections can be lengthened to every three or four weeks. The duration of treatment will depend upon the patient's response, but within the matter of a few months the majority of patients can be rendered free of symptoms. It will usually be advisable for injections to be continued for some time after the patient is having no difficulty.

Elimination treatment is usually confined to patients who have food allergy, inasmuch as desensitization to foods is impractical. Elimination of the offending foods, if these are the only factors causing difficulty, is usually effective in relieving symptoms. For contact substances, such as animal dander, feathers, fabrics and dust, elimination is also desirable. (Dust desensitization, however, is usually recommended inasmuch as the complete elimination of dust is impossible.)

A new form of ointment with a plastic preparation as a base is sometimes most effective in relieving a contact allergy on the skin. For example, a surgeon friend of mine is highly allergic to rubber gloves, a situation which seriously interferes with his practice. Since he has been using this new ointment, a protective film is provided between the rubber glove and the skin, and he no longer has inflammation of his hands following every operation.

Symptomatic treatment of allergy is usually reserved for the moderate to severe attack of nasal symptoms, asthma, flare-ups of the skin, etc. Drug treatment can in no way be considered curative or preventive, but is of great importance in relieving symptoms. Oral medications usually used are the anti-

(Continued on Page 10)

Mrs. Robert Town may defy convention as a gardener, but we are sorely tempted to admit, even in a garden magazine, that she "has something."

The Caterpillar Tree

Mae Lou Town

As they walk inside our gate, landscape gardeners, students of horticulture, and several of our best friends have one reaction in common: They shudder. You see, they have already noted with their highly-trained senses of perception that the moss is growing not only on the north side of all the visible portions of the shrubs, which have achieved tree-like proportions, but also on the north and south side of the gate itself.

This involuntary response on their part disturbs us not at all, because we don't know how ominous the consequences of this unconventional growth can be. Furthermore, we've been particularly careful not to inquire. Fear itself might lead us to scrape off the moss—or, worse yet, to remove every other shrub-tree from our "jungle."

Uninformed also we remain as to the botanical identification of our various plants. We consider this an intra-family matter. Since only a few of us have yet been exposed to the polite obscurity of Latin, we refer to various segments of the green wall enclosing the garden as the "blooming" peach, the "wild rice" bush, the "company" leaves, the "Fourth of July apple" tree, the "cherry-bomb" plum, the "caterpillar" tree, and the mouldy-smelling "Charles Addams Thing" that spasmodically surprises us by springing up overnight by the front steps.

It always comes as a pleasant and refreshing surprise to have the-guest-who-just-shuddered observe next that the "quality" of the planting in the garden is remarkable. However, through the past fourteen years of watching some innocently chosen shrubs become monsters of entangled limbs and long green beards, we are prepared for our friends' next remark. It will be in the form of a tactfully-worded suggestion towards: severe pruning, complete extraction, selective spraying, thoughtful replacing, timely fertilizing, and — of course — proper identification. One morning in 1940, the year that the first section of the house was built, we went out and bought a lot of five gallon plants. A quick glance out the window today confirms my suspicions that they have become twenty or thirty-galloners—not counting their extensive root systems which crop up periodically in the driveway or under the neighbor's wall. The height and depth which they have achieved in fourteen years is perfectly all right with us and certainly proves that they had a strong will-to-grow—come what may.

Twice, after listening to intelligent people discuss the care and feeding of plants, we have even gone so far as to place the approved chemicals in the ground near our twenty-galloners to see if they cared for some. No appreciable difference was noted in the days that followed except for the flies and the fact that the children had to be cautioned to wipe their feet before entering the house.

The only other time our plan-for-ignorance has been endangered was when we listened to the warning of an "expert" concerning eucalyptus. Having somewhere between seventy-five and eighty eucalypti living in cheerful non-segregated proximity to the rest of the yard, we were told to consider removing a few before adding more five-galloners to fill in the gaps in the Green Wall left when the house acquired some new rooms. Luck was with us; the man who was to remove the more threatening of our eucalyptus trees was delayed in arriving long enough for the five-galloners to take a firm grip on the soil. The trees were spared, the newcomers are flourishing.

One tragic removal from our happy family of mad shrubs was the loss-by-hewing of the "caterpillar tree." For years the children of the neighborhood have appeared in the fall and/or spring armed with empty peanut butter jars, to harvest from the teeming branches of this fascinating tree a fuzzy crop of caterpillars. The contents of the jars would next appear—theoretically—on the "sharing" or science tables of local class-rooms. (We have heard indirectly that some were also shared in their own gardens.) Since a hatchet-happy gardener, under the foolish impression that we didn't want caterpillars, has removed the tree, we have searched bitterly and unsuccessfully for another like it. Nursery people whom I have asked don't seem to recognize the term "caterpillar tree," and we may be forced to look up its botanical name in order to procure another similar host for our furry semi-annual visitors.

It's possible that someday we may learn to apologize for the moss, to identify correctly the tree-shrubs and shrub-trees to be faithful to Latin names—or at least nod knowingly when they are mentioned. However, we'll first have to move from this house and garden. Why? Because it has been here that our faithful old five-galloners have been, on the surface, as happy to go their way as we've been to go ours!

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Marion and Henry steal a few moments to themselves, only to find that they are sharing part of their White Christmas with a young fox!

Leaves from The Observer's Notebook

MARION ALMY LIPPITT

For years we had been dreaming of a white Christmas. The children had our promise that when it happened, we would spend Christmas in the cabin at Cuyamaca.

Finally it came—a three day snow storm in the mountains during the week before Christmas!

Christmas is no fun without a party, so when we started off we were over thirty strong. Clinton and Dorothy Abbott came with their three daughters, Dorothea, Lois and Lucia. Ellis and Margie Barron with Gilbert and John, and the twins, Ellis and Betsy. Alvin and Irene Thuli arrived with Alvin, Jr., Janice and Marion, and Mouney and Edith Pfefferkorn with Carol and Eric. Walter and Clara Mull brought Nancy, Ed and Helen, while Caroline Bostick rear-guarded with her twins, Warren and Benton, and her two girls, Beverly and Bernice. "Aunt Sarah Brock," characteristically on the defensive not to become an "institution" finally promised to spend Christmas day with us.

Sarah Shimmin and Lindy agreed to cook for us, and Ruth to help us clean up. Zelle and Mimi Griffith shepherded the small fry, and Walter Mull MCed the older group. Parents were credited with sufficient ingenuity to conduct their own affairs.

Some of us had private cabins, others rented from the Lodge, and a few housed with friends.

We decided to breakfast and supper separately, but to meet at a joint buffet lunch of baked ham, roast turkey and a mixed salad. An abundance of thin bread and sweet butter came with hot cocoa. Pies included blueberry, pumpkin and apple - with - plenty - of-cheese. This stood on the long table at the end of our long living room.

Christmas Eve we trimmed the tree, read the story of The Nativity in St. Luke, recited The Night Before Christmas, and sang carols lustily in front of the six foot fireplace, piled with California live oak logs and huge glowing Coulter pine cones. We finally dispersed to the strains of "We Three Kings of Orient Are!" Its rolling chorus drifted back to us across the moonlit snow:

> "O—O—Star of wonder, star
> of night,
> Star with royal beauty bright,
> Westward leading, still
> proceeding,
> Guide us to Thy perfect
> light."

When "the children"—Henry, Marion, Barbara, David and Jonathan—"were nestled all snug in their beds," Henry, senior, like the lamplighter, went about the living room blowing out the barn lanterns that hung at spaced intervals from bird cage hooks painted black. He left one lamp to light us to bed in the screened-off corner of the living room. As he passed the Christmas tree he stopped to tighten a dangling red ball, and then joined me at the big window. We stood arm in arm looking across the snow to the twinkling lights of the half-hidden cabins of our friends on the hillsides across the lake.

The graceful Coulter pines and the compact incense cedars stood straight and dark against the snow and skyline. Patches of open snow indicated where the dedicuous black oaks were taking over.

> "The moon on the breast of
> the new fallen snow
> Gave a lustre of midday to
> objects below."

repeated Henry softly.

"I saw deer tracks today on the old engineers' road. Could they have been reindeer tracks?" I whispered.

"Let's go snowshoeing right now and find out," suggested Henry.

I gasped. It had been a long day.

"Just a short way," wheedled Henry.

Fatigue dropped from me when I thought of snowshoeing in the mountains at midnight on Christmas Eve in the full of the moon.

Stealthily we prepared for the adventure. We threw on our white blanket Canadian coats with their red and black tasseled skating caps.

San D, sleeping by the fireplace, sensed skullduggery was afoot. He roused himself and sat down before the front door. He completely blocked our exit.

I knelt on one knee, took his muzzle in my hand, and looking him squarely in the eye said, "No, it's not for Cockers! They are incompatable with snowdrifts. Remember how I had to drag you out three times this morning by your hindquarters?"

San D shook his head free of my hand as if he preferred not to be reminded of such indignities. However, something clicked, because with great deliberation, he walked over to his place in front of the fire and lay down, his hindquarters sprawled out.

Quietly Henry and I closed the door behind us. We chose our snowshoes from those leaning against the house. We sat on the bottom step of the porch, tied the shoes on our feet and started off.

Hand in hand we swung along like two school children. Henry hummed and I supplied the words.

> "Good King Weneslas look'd out
> On the Feast of Stephen,
> When the snow lay roundabout,
> Deep, and crisp, and even:"

Henry joined in the singing as we continued.

> "Brightly shown the moon that
> night,
> Tho' the frost was croo-ell,
> When a poor man came in sight,
> Gath'-ring winter fyoo-ell."

Here Henry caught my arm tightly. It brought me to such an abrupt standstill that I almost toppled over. I was about to remonstrate loudly when I saw him hold up a hushing finger and then point ahead of us.

There, loping along fifty feet away, zig-zagging with his nose close to the ground, was one of San Diego County's own grey foxes.

We stood motionless until he was out of sight.

"What's he after?" I whispered.

"Probably a deer mouse," Henry replied close to my ear.

"Oh Oo no," I shuddered, "Not one of those sweet people with large pointed ears, astonished eyes, and white socks on their feet?"

"And a three-inch tail on a four-inch body whose Latin name, Maniculatus, means 'with little gloves.' Even so," added Henry. He noticed my horrified expression and remarked, "Remember, a deer mouse is just beefsteak to a fox."

I made a face at him. "You're annoyingly logical."

"And this is undoubtedly the fox's first winter of foraging on his own." Henry went on.

"Amazing, Mr. Holmes, amazing! How can you tell?"

(Continued on Page 12)

In a re-print from the March 15, 1954, issue of EL ALISO, Rancho Santa Ana Botanic Garden journal, Dr. Lenz describes the advantages of F. mexicana x F. californica over either of its parents.

An Interspecific Hybrid in Fremontia

Lee W. Lenz

The genus *Fremontia* contains two species which are certainly among the most attractive of the native California shrubs. *Fremontia mexicana* and *F. californica* are both popular garden subjects and are frequently encountered in any garden where native plants are used.

Fremontia mexicana grows to be a rather large shrub reaching as much as 20 feet or more in height. The plant branches freely from the base and may be nearly as broad as tall. The alternate leaves vary considerably in size and shape but they are usually 3-5 lobed and from 1-3 inches long, dark green above and strongly pubescent below. The more or less bowl-shaped flowers are borne singly along the branches and are frequently quite large, sometimes being as much as 3.5 inches in diameter. The inside of the flower is a golden yellow while the outside is usually stained reddish-orange. In California *Fremontia mexicana* is found only in extreme southern San Diego County and from there it extends south into Baja California.

Fremontia californica, although a highly variable species, differs from *mexicana* in several respects. The leaves tend to be smaller and are usually somewhat different in shape. The gland at the base of the flower is usually hairy while in *mexicana* it is usually smooth. In *californica* the flowers tend to be borne on short spur branches and these are usually absent in *mexicana.* The seeds of *californica* are somewhat larger than those of *mexicana* and are usually brown in color and sometimes covered with short hairs. In *mexicana* the seeds are black and rather shiny. *Fremontia californica* is found at middle elevations in many places throughout much of central and southern California, extending south to the western edge of the Colorado Desert and the slopes of the San Bernardino Mts. In its distribution it does not in any place approach *F. mexicana.*

Several years ago it was noted that in one of the plantings of *mexicana* growing at the Rancho Santa Ana Botanic Garden, then located in Orange County, there was considerable variation, more so than is usually found in that species. In some respects these plants appeared to be hybrids between *F. mexicana* and *F. californica.* Upon checking the source of the seed from which the plants had been grown it was discovered that that particular lot of seed had been collected from plants of *mexicana* then growing in the Botanic Garden.

In the spring of 1950 the author made controlled pollinations between *F. mexicana* and *F. californica.* Attempts were also made to self the plants, however, in no instance was seed obtained from flowers fertilized with their own pollen and it would therefore appear that Fremontias are self-incompatible.

Plump and healthy looking seed was obtained from the cross *F. mexicana* (female), *x F. californica* (male). The reciprocal cross was not attempted. Seventeen seedlings were obtained from 44 seeds and sixteen of these plants have been grown to flowering.

In 1953 when the plants first bloomed it was obvious that they were of hybrid origin and in most respects they were intermediate between the parents. It was also possible to match certain of the plants still remaining at the old garden site with plants from the controlled cross. It seems probable then that the assumption of a hybrid origin for the earlier lot was correct.

Horticulturally, the F_1 hybrid appears to be a more desirable plant than either of the parents with the most striking differences being seen in the flowers. The large flowers of *mexicana* tend to be bowl-shaped while the smaller flowers of *californica* usually open almost flat. The hybrid combines much of the size of *mexicana* with the more open shape of *californica,* consequently the flowers show off to better advantage than they do in *mexicana.* The glands in the flower vary from having no hairs to slightly hairy. The plants also vary in the matter of the presence or absence of spur branches and on a single branch some flowers may be borne directly from the main stem while others will be found on short side branches.

Examination of the pollen of the hybrid showed almost no aborted grains and the plants set a considerable amount of seed. The seed is black as it is in *mexicana* but it is not shiny.

During the blooming season of 1953 various plantings of *Fremontia* in southern California were examined and in a number of instances plants were found which would appear to be hybrids between these two species. This is to be expected when nurserymen grow plants from seed harvested in botanic gardens or other areas where the two species are growing together.

Unfortunately Fremontias are extremely difficult to propagate vegetatively and consequently it would be nearly impossible to establish and maintain clonal selections of any of the finer forms arising from this cross. For that reason, and also because there is little or no likelihood that this hybrid could occur in nature, no formal taxonomic recognition will be given to it.

(Continued from Page 7)

histamines, particularly for nasal allergy, Ephedrin, Iodides, etc. Cortisone has recently been used with excellent results but must be used with caution. The anti-allergic action of Cortisone is most helpful in relieving exacerbations of allergy. Certain drugs are effective rectally, such as Aminophyllin, as is a new form of Ergotamine which can be used for an attack of migraine. Certain preparations are most effective when given subcutaneously or intramuscularly, such as Adrenalin (Epinephrin). ACTH (Adreno-Cortico-Tropic-Hormone) has also an anti-allergic action which can be prolonged when this preparation is given in the form of a gel. Ergotamine in the form of Gynergen is also effective in relieving attacks of migraine, when given intramuscularly. Some drugs are effective intravenously in relieving attacks, and such a drug is Aminophyllin, used for the relief of a paroxysm of asthma. There are some drugs which are effective when dissolved under the tongue, such as Isuprel. Other drugs which can be prepared in a solution for an inhalant spray can be administered to the nose or breathed deeply into the bronchial tubes for relief of congestion and spasm in the bronchial tubes.

It is needless to say that this dissertation is by no means a complete review of the diagnosis and treatment of allergy, with particular respect to plant allergy, but it is hoped that the reader will have found some points of interest in these articles, and we would welcome any correspondence or questions with respect to these intricate problems.

Miss McLouth, as is her tradition, has done some of our Christmas window-shopping for us, and for our horticulture-loving friends we can choose from among the writings of Peter Shepheard, Josephine Herbst, John K. Terres, or Alice Maxwell.

New Books

ADA MCLOUTH

MODERN GARDENS, by Peter Shepheard. London, The Architectural Press, 1953. $8.00.

In twelve urbane pages of introductory text the author, an architect of buildings as well as of landscape, holds that "no theory of architecture is adequate which odes not embrace landscape also" and vice versa.

His thesis is that landscape art has not kept up with the development of architecture. He discusses the place of the landscape architect in relation to the city planner, the architect and the builder, with some thoughts on professional training.

His language is vivid when he describes materials which he finds unsuitable in English landscape; as: "cacti which have such an air of the sunlit desert . . . or violently-coloured flowers such as . . . geranium . . . natives of arid countries." He contends that such "scorch holes in any landscape." One wonders what are the "puny pink trees" he objects to when they edge arterial highways.

He expresses himself vigorously about the development of "improved" varieties of plants which he terms the "production of monsters."

NEW GREEN WORLD, by Josephine Herbst. New York, Hastings House, 1954. $4.00.

In this sympathetic biography of John Bartram and his son, William, the author gives us the result of years of research and reflection, shedding a lovely soft light on the feeling of the Bartrams for "the branch, the leaf, the little skeleton."

John Bartram, 1699-1777, farmer, plant explorer, Botanist to His Most Gracious Majesty, George III, friend of Franklin, member of the Philosophical Society, correspondent with the famous botanists of his time, including Linnaeus, lived all his life in Pennsylvania, near Philadelphia. He journeyed through the colonies and as far west as the Great Lakes and the fort where Pittsburgh now stands, as far south as Florida, exploring for plants. On these trips he gathered seeds and specimens of plants and animals for shipment abroad. He also planted a wild garden which is now a part of Philadelphia's park system. Trees he planted still stand there.

We see John Bartram as family man, explorer, scientist. There are excerpts from his long correspondence with his friend Collinson who was his agent in London, a man of honor and character equal to his.

William, of similar interests but very different character than his father, is famous for his "Travels through North and South Carolina, Georgia, East and West Florida . . . with Observations on the Manners of the Indians. Philadelphia, 1791."

The Bartram influence is noted in Coleridge's "Kubla Khan" where Florida fountains with mysterious underground sources and channels appear in "caverns measureless to man."

SONGBIRDS IN YOUR GARDEN, by John K. Terres. New York, Crowell, 1953. $3.95.

Mr. Terres writes from experience as well from his special knowledge as editor of the Audubon Magazine, and as a field biologist with the U. S. Soil Conservation Service.

He gives explicit instructions with drawings of various types of bird-feeders and birdhouses, also bird baths, even to suggestions for heating birdbaths in colder climates. A table gives dimensions for dwellings for twenty different birds, from wrens to screech owls, and the drawings show the construction.

LILIES IN THEIR HOMES, by Alice Constable Maxwell. New York, Van Nostrand, 1953. $4.00.

This small, scholarly book by an English author would seem to supply the information needed by the home gardener who fancies lilies.

Part I describes the species, grouping them geographically. Even in the brief notes there are glimmers of the romance of plant exploration as each description includes some history of the plant.

Part II crowds into twenty pages the culture and pests of lilies.

Part III lists them alphabetically, giving blooming periods, special merits, quotes authorities.

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JANET RICHARDS

A one day trip to the Rancho Santa Ana Botanic Garden will be arranged in the spring. If you wish to be notified of that trip please mail your name and address or telephone number to the San Diego Floral Association Tours, Balboa Park.

There is also brewing a 10-day Garden Tour to Honolulu and Kauai for members of the Floral Association which might coincide with the flower show at the Honolulu Academy of Arts. Information is now being gathered in order to make a more specific presentation, but if the idea intrigues you notify the address above that you are interested.

Frank Quintana, science editor of this magazine, in gathering information on tropical plants, sent to the U. S. Printing Office in Washington for a copy of the bulletin done by the Federal Experiment Station of the U. S. Department of Agriculture at Mayaguez, Puerto Rico. The bulletin lists in its bibliography some ninety references, but what impressed Quintana was item number 6: Clark, A.M.—Giant Strelitzia, 1949 CALIFORNIA GARDEN Vol. 40, No. 2, p. 3-4.

For those who might be interested in that same bulletin its title is "Some Large Leafed Ornamental Plants for the Tropics." Circular No. 35. Send thirty-five cents to the U. S. Printing Office, Washington, D. C.

And here it might be well to announce that we need a volunteer, tenacious in spirit, and meticulous of mind, who would like to take the forty-five volumes of this magazine and prepare an index. It is needed. Please apply to Mrs. Bruce Hazard.

Sometime last spring the Floral Association received a letter and check from a U. S. service man in Korea. The letter stated that his wife was about to have a baby and that on the day that baby was born, he wanted her to have the most beautiful bouquet of flowers that check could buy. "Will the Floral Association take care of it for me?" he asked. He enclosed the telephone number of his wife's mother so that the birthday could be learned. The check was turned over to Rainford Flower Shop and the mother-in-law was asked to call them immediately when the baby arrived.

A few weeks later, a new mother received the most beautiful bouquet of flowers from her husband overseas within a few hours after the arrival of their first baby.

(Continued from Page 9)

"It's elementary Dr. Watson, elementary. The fox looks thin, young, and inexperienced. Foxes are born in the spring. They enjoy family life longer than most wild creatures. They den together in litters of three or four until autumn. Then, one night in the late fall, they do not return to their den. Solitary, in the cold darkness, each starts out to find his own food."

By now my sympathies had swung to the young fox. I saw that Henry was determined that I should follow the impartial and universal line and not bog down in the personal.

We had now gone beyond the meadows. Glancing at my watch, which I could only dimly see, I exclaimed, "Home, James."

I swung around, dragging Henry to an about-face. He did not demur, and after a moment's silence, he started to hum. This time it was, "Oh Little Town of Bethlehem."

Again I supplied the words, ending as we approached the cabin with,

"Where humble hearts receive Him still
The dear Christ enters in."

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GERARD and SANDS
In the Green Dragon Colony of La Jolla showing decorative objects both American and European.
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The Home of the La Jolla Honeycomb Candle

Mr. Quintana credits architects and decorators with the growing popularity of philodendron. As he illustrates, this leading house plant can be found in sufficient variety of leaf sizes, patterns and textures to satisfy any taste requirement.

Philodendron

Frank C. Quintana

Probably no genus of plants is grown more universally than the philodendron. Oddly enough, this is true only because one particular philodendron enjoys a widespread usage. Hordes of people who haven't the foggiest notion of gardening, but who are perfectly charming otherwise, keep a planter or a pot of *P. oxycardium* (better known as *P. cordatum*) somewhere in their homes. Many of these people will go to their graves convinced that it is an ivy of some kind. This is not altogether surprising when you consider that a tremendous number of plants of this species are sold every year in "variety" stores, five-and-tens, supermarkets and drug stores where clerks are likely to be misinformed. However, aside from the extensive casual interest on the part of those who merely want something green and growing in their homes, the increasing emphasis by architects and decorators on the use of planters in both commercial and residential interior design is doing much to spread the fame of, and the fascination for, the philodendron.

There is good reason for the popularity of this species. Philodendron are very nearly ideal house plants. The more commonly available varieties will endure conditions, the mere thought of which would cause plants of other types to shrivel. They survive the arid atmosphere of the steam-heated apartment living room, or the air conditioned chill of a restaurant. They will tolerate living with the forgetful waterer, or resist the ministrations of the plant-drowner. They put up with a wide latitude of light intensity, and will do their best to live in a dimly lit hallway, or a fairly bright window ledge. And finally, by comparison with plants of other genera, they are practically free of pests and diseases.

It should be pointed out that, while this panegyric of valorous virtues is quite true, a prolonged program of abuses will eventually result in the plant's demise, or cause it to take on the appearance of an horticultural caricature. A philodendron will respond with grace and alacrity to proper cultural attention, and a well grown plant is a joy to behold.

Philodendron is a compound Greek word meaning tree-loving. The generic name aptly describes the affinity that the vining types exhibit for bark. Vining types tend to produce aerial roots at each node, and, wherever it is possible, these roots will promptly wedge themselves into the crevices of a rough bark. Once established, the roots serve not only as secondary supports, but also to convey supplementary nutriment and moisture to the plant. This habit of the vining or climbing philodendron should emphasize the cultural necessity of providing a suitable standard for the roots to engage. If bark slabs are not available, slabs of Hawaiian tree fern are excellent substitutes, particularly since this material enjoys a wide distribution throughout the nurseries. Otherwise, moss poles can be prepared by stuffing sphagnum into a prepared galvanized wire totem. Many of the vining types are sturdy enough to support themselves to a height of about two feet. After that they can be expected to flop over and snap off. Moreover, the unsupported climber will tend to drop its lower leaves more readily, and take on an unsightly leggy appearance.

Because of the widespread use of *P. cordatum* and the fairly common appearance of the "split leaf" (*Monstera deliciosa*), philodendron have been regarded by many people as a somewhat limited field for interest. Nothing could be a more mistaken attitude. Today, plantsmen recognize about two hundred and fifty species, all of which are native to the tropical Americas. Of this number, perhaps a hundred are available commercially. Others exist only in private collections, or as herbarium specimens. Among the species offered for sale are a number of tender entities requiring a tropical environment, which must be treated as greenhouse subjects, but others have proved quite hardy. *P. selloum,* for example can hardy. *P. selloum,* for example, can withstand temperatures as low as 25°F. In addition to the various species, an increasing number of hybrids is now appearing on the market. This has been made possible by recent discoveries of successful methods of hand-pollination. It might also be mentioned that these same discoveries have led to the more general circulation of the previously rare arborescent types of philodendron. The arborescent or crowning types have a different growth pattern from the climbing types, in that they have very short internodes, and effectively, the leaves arise from a central crown. The plants do not require supports, and they have the advantage of a symmetrical appearance from every viewing angle. Prior to 1950, crowning philodendron were almost unknown in this country except for the enthusiastic reports of plant explorers and botanists. In their natural habitat, the jungle specimens were almost always too large to be moved, and their growth habit is such that they do not sucker freely, nor do they lend themselves to the convenient asexual propagative methods used for vining types. For many years, therefore, they resisted domestication.

As indicated above, philodendron do have flowers, which, for simplicity, might be described as resembling a calla or a Jack-in-the-Pulpit. However, the plants are primarily grown for their foliage. It may be truly said that philodendron come in a sufficient variety of leaf sizes, patterns and textures to satisfy any taste requirement. There are color variations as well to further intrigue the collector. *P. krebsii,* which has apple green leaves about the size of tradescantia (wandering jew), is perhaps one of the smallest and daintiest of the climbing types. On the other hand, *P. giganteum,* a native of the West Indies, has smooth textured, medium-green, heart-shaped leaves that will measure forty inches long by twenty-four inches wide at maturity. The leaves of *P. hastatum, P. imbie,* and *P. sagittifolium,* are somewhat more elongated, and may be said to resemble a spearhead or arrowhead. *P. hastatum* is much admired for its rich green foli-

age and heavy texture. There is also a variegated form of *P. hastatum,* or, at least, it is sold as such, for some authorities maintain that it is a variegated *P. flavens.*

Philodendron erubescens is a climber that displays elongated heart-shaped leaves, but the glossy green upper surface of the leaf is tinged with red tones, and the underside is decidedly coppery. The mature leaves are slightly undulating, attached to a red-tinged cane by reddish leaf stems.

Another red leaf is *P. cruentum,* a new introduction with elongated oval leaves having a green upper surface and mahogany-red undersides. One of the handsomest of the solid-leaved climbing types is *P. andreanum.* This is strictly a green house subject, requiring warmth and humidity. Juvenile leaves are characteristically heart-shaped, but the mature foliage tends to elongate and become more arrow-like. The leaves might be described as a very dark olive-green velvet. The veins have a yellowish cast, and because they run in prominent valleys, the blush of the velvet like upper leaf surface is emphasized. The new leaves provide still further interest by exhibiting a coppery tone as they first unfold. *P. andreanum* is truly a striking plant, and well worth the special attention required.

Vining or climbing types also include a number of pinnatifid varieties. These have foliage that is variously lobed, punctured, or lacerated into interesting patterns. The nomenclature gets a little redundant in this group, as the species *P. lacerum, P. lacineatum* and *P. laciniosum* will amply demonstrate. As listed, they have an increasing order of complexity of form. *P. lacerum* might be regarded as the dividing line between the solid or entire leaved varieties and the serrated types. Lacerum has a heart-shaped leaf with a continuous jagged edge, appearing as though it had been trimmed by king-sized pinking shears. Lacineatum and Laciniosum are roughly triangular in outline, and have deep green, smooth textured leaves that are deeply notched. Notching produces characteristic effects that enable detailed descriptions of the arrangements of the various lobes and leaf apex. For the sake of brevity these descriptions are best omitted.

Monstera deliciosa is often sold as the "swisscheese plant" or more frequently as the "split-leaf philodendron." The mature leaves of this subject are oval in shape, and are not only deeply serrated, but also shot with irregular patterns of variously sized holes. The foliage is deep green in color and has a heavy leathery texture. A horticultural variant of this plant having immense leaves is sometimes sold as *M. deliciosa, gigantifolia. P. dubium* (*dubia*) is a trade name that has been given to what many experts feel is really *P. radiatum.* (The true Dubium is an entire-leaved philodendron native to Paraguay.) The leaves of Dubia are roughly triangular, deeply segmented, varying from five to ten sections on a side, deep green and heavy textured. There is also a ruffled variant of this species available commercially. The most fern-like of the cut-leaf group is *P. elegans,* the leaf of which is again deeply serrated, almost to the midrib, but the individual lobes or segments are long and slender. It is reminiscent of *Pteris ouvardii.*

The arborescent or crowning types of philodendron also exhibit both entire and cut-leaf varieties. *P. wenlandii* has long, narrow, spatulate, dark green leaves that grow in a rosette around the center of the plant. The leaf stem is swollen at the base, succulent, round at the bottom and sides, and flat on top. At the point where the stem joins the leaf blade, it becomes the very prominent midrib of the leaf. At maturity, the leaves may become thirty-six inches long by about ten inches wide. Wenlandii has been used as one parent in the production of hybrids, notably, Wenlandii x Imbie. This hybrid sold by some nurseries as *P. wendimbie* is an excellent merger of the characteristics of both parents. The leaves retain their spatulate form, but are broader and of a lighter green than Wenlandii. New leaves are encased in a pink sheath which is deciduous, and the underside of the leaves has a reddish tinge. The very prominent midrib of the Wenlandii leaf is lost, but the arborescent habit of growth is retained. This hybrid is certainly to be recommended as a houseplant. Another excellent hybrid made by crossing Wenlandii with an unnamed heart shaped climber is *P. orlando.* The growth habit of this plant is also self-heading, but the influence of the other parent appears in broader leaf blades and the longer leaf stems.

Of the cut-leaf self-heading types, two species have received considerable attention, *P. selloum* and *P. bipinnatifidum.* Both of these plants become very large, and both are quite hardy, resisting temperatures below freezing. Where space is no object, either of these plants may be grown indoors as tubbed specimens. Otherwise, they are excellent subjects for inclusion in a tropical landscaping project. *P. selloum* will even take full sun for most of the day, especially along the coast. Bipinnatifidum has leaves similar to *P. dubia* (hort.) but of very much greater size. The leaves of Selloum, which will grow to forty inches long, are glossy, medium green and deeply notched. They are held on long (up to fifty inches) gracefully arching stems that arise from a central crown. There are usually seven or eight lobes on each side of the leaf, and the individual lobes have shallow indentations around their entire perimeter.

Both Bipinnatifidum and Selloum have been used in the development of hybrids. *P. evansii* (*selloum x speciosum*), is the result of a hybridizing

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program conducted by Morgan (Bill) Evans of the Evans and Reeves Nursery in Los Angeles. Evansii is another gigantic philodendron, as might be expected from its parentage. The dark green leaves of this hybrid have a wavy, slightly indented, undulating periphery. Like selloum, the leaf blade arches upward from the central vein. The leaf has a shape that is broadly arrow-like, and, in my opinion, is possessed of more substance and character than the leaf of either parent. The hybrid exhibits a hardiness to low temperatures about equivalent to selloum. The mature leaves of evansii are immense, easily measuring about fifty inches long by about thirty inches wide. Bipinnatifidum has been used in the production of *P. fosterianum*, the other parent being a crowning cut-leaf species as yet unnamed. The hybrid has glossy, deeply indented, heart-shaped leaves of excellent texture.

Cultural requirements of the philodendron are comparatively simple. Primary considerations are a loose well-drained soil high in organic material, and regular watering. It is a difficult thing to make strong recommendations for a potting mix. Every gardener eventually develops a formula of his own which seems to manage agreeably for him. As often as not, changing over to a new mixture brings a large share of grief until an understanding of the different behavior of a different soil is developed. Since it is the fashion to make suggestions about potting mixes, I shall describe the one I use. It serves me not only for philodendron, but for camellias, begonias, and a number of other plant types.

2 parts coarse leafmold
2 parts compost
2 parts weathered redwood shavings
1 part steer manure

To one wheelbarrow of this mixture I add about one and a half gallon cans of Sponge-Rok. I have to admit that I don't prepare this mixture with any great degree of precision, but the proportions are approximately correct. As a rule, the materials are mixed well, heaped up, and then moistened by flooding a shallow depression made in the top of the pile. A few days later the whole business is turned over and then used as required. I like this mixture for the reason that plants do well in it for me. It drains rapidly, and seems to resist decomposing promptly into that fine particled and densely packing muck, the anathema of potted plants.

To insure uniform growth of the foliage it is good practice to keep philodendron well watered. The soil should be kept moist at all times but not sopping wet. The leaves enjoy a dousing now and again, and if there is no other way, set the plants in the bathtub and give them a shower once in a while. For special grooming, the leaves will tolerate occasional treatment with leaf shine products sold by nurseries and florists. As mentioned much earlier, the climbing types are happiest when they have a slab of bark (or tree fern or moss pole) into which they can sink their aerial roots.

Fertilizing is a tricky problem if you are growing philodendron as a house plant. A heavy feeding schedule will certainly cause the plant to grow out of bounds with its surroundings sooner than desirable. A fertilizing program of applications of a DEODORIZED liquid plant food at two month intervals might be the best compromise between healthy appearance and slow growth. Specimen plants in tubs, or planted out in the patio or lathhouse will enjoy a more liberal feeding schedule. Regular monthly applications of high nitrogen analysis plant foods will result in the lush growth so desirable in tropical effects.

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ADA PERRY

She said she didn't know a thing about gardening, but I thought she did all right. There were some raised flower beds at her beach home and she chose schizanthus for the background of one bed and mixed violas for in front. In the other she would put the mixed seedling carnations and white alyssum in front. I must admit modestly that I showed her the flowers with hints for their possibilities. But she had brains enough to use the facts, or should I say they were sharpened to a good edge for practical use.

Many San Diego women are like her and, believe me, that sort of thing puts nursery selling on the high plane of cooperation. Which means mutual satisfaction.

I would also like to mention the gentleman who started out looking for a dwarf Robertson navel orange and ended up by putting a sunny azalea on either side of a little heather, Erica *blanda,* for a grouping in front of his ornamental passiflora vine. I was a little offended that he should consider those dwarf Robertson navels a bit small. To be sure they could use two more months in the five gallon cans but I loved them dearly and to me they were pearls, nevertheless.

But the selection of the sunny azaleas for something different in the shrub line was real zorch. I showed him everything usual but he refused to spark until this something up to date and choice was pointed out.

The sunny azaleas are adventures. They are hybridized to be planted in part sun or all, if the location in no way resembles a frying pan. You do excavate a generous hole and refill it with firmly packed, damp peat moss.

Down at this nursery where I work, we try to beat out general rules for the needs of various plants for our own and, consequently, the customers' information. So heathers and hybrid tea plants are most attractive mid-winter blooming plants.

The heathers we plant here are not Scotch. French, Mediterranean, North African, but not Scotch. And their colors are pink, coral, lavender, and brick red. I've never seen Scotch heather in person but in color movies it looks a durn sight like lupin.

Anyway, the hybrid tea plants are astonishingly e c l e p t leptospermums. They're distinguished by the slim, limber branches with tiny leaves and myriads of small flowers, single or double. Their colors are rich red, rose, pink and blush, and pure white.

Of the two, in the growing space of five years, the hybrid tea plants will grow the taller. Both are good for cutting, and both are kept in shape by cutting for bouquets, or pruning back to shape after the flowers are past.

So—rules for their planting are: well drained shade or sun for the heathers with the acid-soil influence of evergreens and peat moss mixed in the planting soil; (if you have pines, junipers, chamaecyparis, thujas, try heathers as near as you dare to them and keep the heathers watered sufficiently until established) for the leptospermums, good neutral soil and moderate, regular watering until established. It is safe to say that both types of plants require less water as the years go by. In many instances they will be short lived. But a pretty hat doesn't last forever, either. We subscribe to the clause that you should not plant that cute Ruby Glow or other leptospermum right in front of that big window unless you are sure it is what you want to peer out through. Those plants can get up to six feet.

During the holidays, it still isn't too late to dig steer into empty beds between rains. If you're busy with plans, sometimes that's all you have brains enough left to do. And a person does need exercise. You can also go around shooshing oil and fungicide sprays on most things except your winter blooming camellias and azaleas. Don't douse them with dormant deciduous bad-tasting medicines.

And speaking of the dormant and deciduous, bare root fruits, berries and roses will be ready for you along with the new year.

I might suggest getting them first, while there is a selection. Or early enough so your bewildered dealers can tell which you're going to jump us most for and maybe we can reorder. This done, you can let us gnaw on the knot of public demand while you prune your existing roses and fruit trees. That's February; or earlier, if you have no other appointments.

And for goodness sakes, think before you prune, or call up and ask. Else you'll have to stand in a corner the very next nursery you go into.

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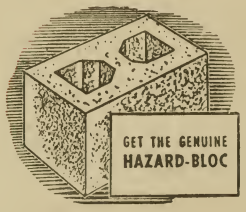

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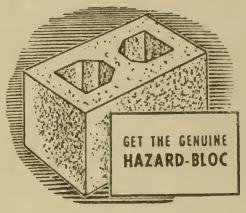

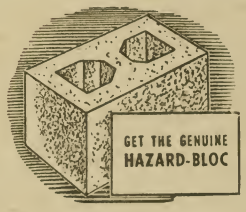

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